

ALASKA GEOLOGY

Newsletter of the
Alaska Geological Society



A Digital-Cuttings Drill-Down, with Examples from the Geolog Americas Nanushuk-Torok Regional Cuttings Consortium

Guy M. Oliver

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Drill cuttings are an invaluable source of quality organic and inorganic geological data and yet are often underutilized. This talk will focus on the importance and usefulness of cuttings data for hydrocarbon habitat understanding, with examples from Geolog's new Nanushuk-Torok Rock and Fluids Regional Cutting Dataset which when complete, will hold over 200 wells worth of Nanushuk-Torok cuttings data (circa 15,000 data points) across the entire 'North Slope Super Basin' (after Masterson & Holba, 2021). Key to the understanding of this petroleum play is more regional data and interpretation associated with reservoir and source rock, type and quality.

As part of this dataset Geolog Americas with the support of the GMC and AOGCC, recently collected and analyzed for organic and inorganic content, 98 drill cutting samples from the Nanushuk and Torok intervals of Umiat Test Well-11.

The data presented reveals some key, new findings regarding source rock type and facies, as well as interesting data relating to reservoir quality. For example, biomarker and source rock quality data suggest 2 different sources or source facies, a possible baffle zone may have inhibited the vertical migration of hydrocarbons, and reservoir quality data suggests differences in clay speciation across the Torok and Nanushuk Formations which may inhibit reservoir quality

These types of data from the Nanushuk – Torok Formations are currently being consistently measured across the entire North Slope Super Basin as part of Geolog's new Nanushuk-Torok Rock and Fluids Regional Cutting Dataset. This rich dataset when combined with other data such as 3D seismic will assist the Energy Industry in better understanding this potentially prolific Nanushuk-Torok Play and help to reduce some of the uncertainty surrounding source rock type & facies, and reservoir quality/facies.

AGS Meeting

Date & Time:	Wednesday, May 25; Doors open 11:30 am, announcements 11:45 am, talk 12:00 – 1:00 pm
Program:	A digital-cuttings drill-down, with examples from the Geolog Americas Nanushuk-Torok Regional Cuttings Consortium
Speaker:	Guy Oliver, Geolog Americas; Refreshments/snacks courtesy of Geolog Americas
Place:	Hybrid online & live GMC presentation at 3651 Penland Parkway, Anchorage, AK 99508
Reservations:	Reservations are not required
Login:	For instructions on how to log in see AGS website: http://www.alaskageology.org/events.html or DGGs website: https://dggg.alaska.gov/gmc/webinar-series.html
How to Join:	Join meeting via with Teams#

About the Speaker:

Guy M. Oliver is the Director of Data Science & Energy Transfer at Geolog Americas, Houston and has been passionate about Drill Cuttings for the last 25 years, having written and presented many articles on the subject. Part of Guy's current role at Geolog centers around creating rich, consistently measured, digital and easily accessible regional databases utilizing cuttings data and Geolog's proprietary methodology for sample preparation and analyses. Key to this is a strong belief that cuttings provide a valuable source of information for reservoir and fluid analyses that are fundamental for petroleum systems understanding.

Guy received his BSc Geology Degree from Cardiff University, Wales in 1991, his MSc Petroleum Geology from Imperial College, London in 1992 and his PhD in High Resolution Sequence Stratigraphy & Early Diagenesis, from Plymouth University, England in 1996.

From the President's Desk:

Hello AGS colleagues,

Please join me in welcoming our May luncheon speaker, Guy Oliver, with Geolog. Guy's presentation is titled: Digital-Cuttings drill-down, with examples from the Geolog Americas Nanushuk-Torok Regional Cuttings Consortium. Kurt Johnson, Alaska Geological Materials Center Curator, is coordinating his meeting with us, thank you.

Our annual meeting this May is when we announce the results of our elections of the upcoming AGS board. We have several people who have volunteered to run for positions this upcoming year. We still need a president elect and at least one more director. Please reach out to me or upcoming president, Sarah Frey, if you are interested. It has been an honor to work with our AGS board this year – great scientists/great people. They are the behind-the-scenes folks who make monthly presentations available, conferences delivered, pioneers celebrated, and newsletters written.

I had a great time in Fairbanks last month at the technical conference at the University of Alaska Fairbanks. Our invited speakers captured history – history of oil fields, history of graphite deposits, and history of our celebrated pioneers and their advancements of the understanding of our geology in our state. I always know we had a successful conference or AGS talk when the president's inbox has messages asking me for copies of speaker's presentations the following morning. I had multiple requests on Monday morning! Thank you AGS technical committee: Heather Beat, Dr. Paul McCarthy, Dr. Elisabeth Nadin, Sue Karl, Jennifer Crews, Corey Ramstad, and Laura Gregersen. Thank you sponsors: PRA, Hilcorp, Usibelli Coal Mine, Duncan Petroleum Advisors, University of Alaska, Museum of the North, and ConocoPhillips.

I wish you a healthy, joyful, summer filled with geologic wonder – in your mind, your heart, and your physical journey.

All my best,

Laura Gregersen

Alaska Geological Society

2022 Elections



The election of the 2022-2024 AGS Board of Directors and officers for 2022-23 will take place prior to our monthly AGS meeting on May 25, 2022.

For those of you that are active (dues paid) members, the actual election will invite **you to participate as voters** in this election. If you are uncertain as to your membership status, please check: 1) the current members list on the attachment; or 2) the link at “**CURRENT MEMBERS**” at upper right on the opening page of the AGS website (<https://www.alaskageology.org/>), or 3) your status via email to our membership chair (membership@alaskageology.org).

We have some nominations for officers, but we are always looking to get new involvement into the Board. If you want to be involved in AGS activities, but don't want to be on the Board, there will be committee positions that volunteers may handle (memberships, publications, newsletter editor, advertising, fundraising, etc—see p. 14 of the April 2022 newsletter (https://www.alaskageology.org/uploads/1/1/9/5/119566579/april_2022_newsletter.pdf)). As these committees will be formed next year, there is no action required by you right now, but please do advise us of your willingness to support your local geological society in any committee position that interests you.

If interested in serving on our Board please contact the AGS Nominations Committee Chairpersons Laura Gregersen (president@alaskageology.org) or Sarah Frey (Sarah.King@hilcorp.com).

Open Board positions

President-Elect

2 Directors for 2022-2024 (Two-Year Terms)

We will send out complete voting instructions in a separate note via email in the coming weeks. Due to COVID-19 restrictions, we are setting up a vote-online process using Google forms. We will also offer a download-and-mail-in ballot for those who prefer that method



Alaska Geological Society



SEEKING DONATIONS FOR AGS SCHOLARSHIP FUNDS

This is a challenging year for students at all levels, and geoscience students in the universities need our support more than ever. When you pay your membership dues this year, please consider a contribution to an AGS scholarship fund. You can also contribute to AGS scholarships through Pick, Click, Give when you apply for your Alaska Permanent Fund Dividend. **AGS is a 501c3 nonprofit organization and all contributions are tax deductible.**

The Alaska Geological Society offers scholarship awards
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Scholarship information and applications are available online at
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The Alaska Geological Society, Inc.
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The Alaska Geological Society is an organization which seeks to promote interest in and understanding of Geology and the related Earth Sciences, and to provide a common organization for those individuals interested in geology and the related earth sciences.

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MEMBERSHIP INFORMATION

AGS annual memberships expire November 1. The annual membership fee is \$25/year (\$5 for students). Lifetime membership is \$250. You may download a membership application from the AGS website and return it at a luncheon meeting, or mail it to the address above.

Contact membership coordinator Kirk Sherwood with changes or updates (e-mail: membership@alaskageology.org; phone: 907-240-2546)

All AGS publications are now available for on-line purchase on our website. Complete catalogue at: <http://www.alaskageology.org/publications1.html>

ADVERTISING RATES

Advertisements may be purchased at the following rate: \$200 for 9 monthly issues (September - May) of AGS newsletter (any size up to full page) and companion ad on AGS website for full year (beginning each September).

Contact Jennifer Crews at jennifer.r.crews@conocophillips.com to place ad.

Pick.Click.Give.

It's PFD Application Time!

Did you know that you can support the society through Pick.Click.Give? When you fill out your PFD application, just select Alaska Geological Society, Inc. in the list of non-profits and you can help AGS to promote the uniqueness of Alaskan Geology and provide for education, geologic research, and networking to all who are interested as well as provide scholarships to students across a wide range of geologic topics.

<https://www.pickclickgive.org/index.cfm/pfdorgs.info/Alaska-Geological-Society-Inc>

- From the PFD home page <http://pfd.alaska.gov/Application>, select the green "Add or Change Your Pick.Click.Give. Donation" button
- You can change/add your donation at any time throughout 2021



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Alaska Geological Calendar of Events



Date	Time	Organization	Event	Location
Feb. 17 2022	11:45 am	AGS	Trevor Waldien, Interactions among inherited plate boundaries, slip rate gradients, and lithospheric structure in the Alaska Range, southern Alaska	Google Meet
Mar. 17, 2022	11:45 am	AGS	Edward A. Duncan, Duncan Petroleum Advisors, LLC, Integrated Seismic Stratigraphic, Geochemical Volatiles Analysis and Petrophysical Quantification of a Brookian Foredeep, North Alaska Campanian Margin Multi-Billion Barrel "Super Trap"	Google Meet
May 25, 2022	11:45 am	AGS	Guy M. Oliver, Geolog Americas, "A digital-cuttings drill-down, with examples from the Geolog Americas Nanushuk-Torok Regional Cuttings Consortium"	Google Meet

AMA: Alaska Miners Association; **AGS:** Alaska Geological Society; **GSA:** Geophysical Society of Alaska

AAEP: Alaska Association of Environmental Professionals; **SPE** Society of Petroleum Engineers;

UAA University of Alaska Anchorage.

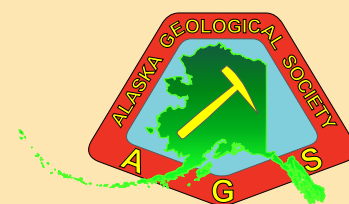
Membership Note

Membership renewal is November 1; annual dues are:

Full member - \$25

Student member - \$5

Lifetime membership - \$250



2021 - 2022 Alaska Geological Society Board, Committees and Delegates

Title	Name	Phone	e-mail	Affiliation
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